



Mar 28, 2023

New Product Development Dept.2

**HCA3500TF series Reliability test results**Approved : Takashi YamaminePrepared : Yuto Hori

No.	Test Item	Testing conditions	Conditions of acceptability	Number of samples	Number of failures
1	Heat cycle test	(1) -40°C -125°C 30minutes each (2) 800cycles	(1)No degradation of electric characteristics after test. (2)No crack at solder joint.	1	0
2	High temperature/ High humidity bias test	(1) Ta=85°C, RH=85% (2) At rated input (3) Load 0% (4) 1000hours	(1)No degradation of electric characteristics after test.	1	0
3	Vibration test	(1) f=10-55Hz, 19.6m/s <sup>2</sup> (2G) (2) 3 minutes period (3) 60 minutes along X, Y and Z axis	(1)No degradation of electric characteristics after test. (2)No crack at solder joint. (3)No mechanical damage of appearance.	3	0
4	Impact test	(1) 196.1m/s <sup>2</sup> (20G), 11ms (2) Once each X, Y and Z axis	(1)No degradation of electric characteristics after test. (2)No crack at solder joint. (3)No thermal damage of appearance.	3	0
5	Electrostatic discharge immunity test	(1) Applied voltage ±8kV (2) At rated input and load	(1)No protection circuit fail. (2)No output voltage drop with control circuit fail. (3)No function fail.	1	0